Framework for Dredged Material Management November 1992

APPENDIX A: GLOSSARY

Definitions of terms as they are used in this document are given below.

Aquatic environment

The geochemical environment in which dredged material is submerged under water and remains water saturated after disposal is completed.

Aquatic ecosystem

Bodies of water, including wetlands, that serve as the habitat for interrelated and interacting communities and populations of plants and animals.

Baseline

Belt of the seas measured from the line of ordinary low water along that portion of the coast that is in direct contact with the open sea and the line marking the seaward limit of inland waters (see Figure 1-1 in the main text).

Beneficial uses

Placement or use of dredged material for some productive purpose. Beneficial uses may involve either the dredged material or the placement site as the integral component of the beneficial use.

Bioaccumulation

The accumulation of contaminants in the tissues of organisms through any route, including res piration, ingestion, or direct contact with contaminated water, sediment, or dredged material.

Capping

The controlled, accurate placement of contaminated material at an open-water site, followed by a covering or cap of clean isolating material.

Coastal zone

Includes coastal waters and the adjacent shorelands designated by a State as being included within its approved coastal zone management program. The coastal zone may include open waters, estuaries, bays, inlets, lagoons, marshes, swamps, mangroves, beaches, dunes, bluffs, and coastal uplands. Coastal-zone uses can include housing, recreation, wildlife habitat, resource extraction, fishing, aquaculture, transportation, energy generation, commercial development, and waste disposal.

Confined disposal

Placement of dredged material within diked nearshore or upland confined disposal facilities (CDFs) that enclose the disposal area above any adjacent water surface,

isolating the dredged material from adjacent waters during placement. Confined disposal does not refer to subaqueous capping or contained aquatic disposal.

Confined disposal facility (CDF)

An engineered structure for containment of dredged material consisting of dikes or other structures that enclose a disposal area above any adjacent water surface, isolating the dredged material from adjacent waters during placement. Other terms used for CDFs that appear in the literature include "confined disposal area," "confined disposal site," and "dredged material containment area." .

Contained aquatic disposal

A form of capping which includes the added provision of some form of lateral containment (for example, placement of the contaminated and capping materials in bottom depressions or behind subaqueous berms) to minimize spread of the materials on the bottom.

Contaminant

A chemical or biological substance in a form that can be incorporated into, onto, or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment.

Contaminated sediment or contaminated dredged material

Contaminated sediments or contaminated dredged materials are defined as those that have been demonstrated to cause an unacceptable adverse effect on human health or the environment.

Control measure

See Management action.

Disposal site or area

A precise geographical area within which disposal of dredged material occurs.

Dredged material

Material excavated from waters of the United States or ocean waters. The term dredged material refers to material which has been dredged from a water body, while the term sediment refers to material in a water body prior to the dredging process.

Dredged material discharge

The term dredged material discharge as used in this document means any addition of dredged material into waters of the United States or ocean waters. The term includes open- water dis charges; discharges resulting from unconfined disposal operations (such as beach nourishment or other beneficial uses); discharges from confined disposal facilities that enter waters of the United States (such as effluent, surface runoff, or leachate); and overflow from dredge hoppers, scows, or other transport vessels.

Effluent

Water that is discharged from a confined disposal facility during and as a result of the filling or placement of dredged material.

Emergency

In the context of dredging operations, emergency is defined in 33 CFR Part 335.7 as a "situation which would result in an unacceptable hazard to life or navigation, a significant loss of property, or an immediate and unforeseen significant economic hardship if corrective action is not taken within a time period of less than the normal time needed under standard procedures."

Federal project

Herein, any work or activity of any nature and for any purpose that is to be performed by or for the Secretary of the Army acting through the Chief of Engineers pursuant to Congressional authorizations. It does not include work requested by any other Federal agency on a cost reim bursable basis.

Federal standard

The dredged material disposal alternative or alternatives identified by the U.S. Army Corps of Engineers that represent the least costly alternatives consistent with sound engineering practices and meet the environmental standards established by the 404(b)(1) evaluation process or ocean-dumping criteria (33 CFR 335.7).

Habitat

The specific area or environment in which a particular type of plant or animal lives. An organism's habitat provides all of the basic requirements for the maintenance of life. Typical coastal habitats include beaches, marshes, rocky shores, bottom sediments, mudflats, and the water itself.

Leachate

Water or any other liquid that may contain dissolved (leached) soluble materials, such as organic salts and mineral salts, derived from a solid material. For example, rainwater that percolates through a confined disposal facility and picks up dissolved contaminants is considered leachate.

Level bottom capping

A form of capping in which the contaminated material is placed on the bottom in a mounded configuration.

Local sponsor

A public entity (e.g., port district) that sponsors Federal navigation projects. The sponsor seeks to acquire or hold permits and approvals for disposal of dredged material at a disposal site (USACE 1986).(1)

1. References cited in this appendix are included in the References at the end of the main text.

Major federal action

Includes actions with effects that may be major and that are potentially subject to Federal control and responsibility. Major refers to the context (meaning that the action must be analyzed in several contexts, such as the effects on the environment, society, regions, interests, and locality) and intensity (meaning the severity of the impact). It can include

(a) new and continuing activities, pro jects, and programs entirely or partly financed, assisted, conducted, regulated, or approved by Federal agencies; (b) new or revised agency rules, regulations, plans, policies, or procedures; and (c) legislative proposals. Action does not include funding assistance solely in the form of general revenue-sharing funds where there is no Federal agency control over the subsequent use of such funds. Action does not include judicial or administrative civil or criminal enforcement action.

Management action

Those actions or measures that may be considered necessary to control or reduce the potential physical or chemical effects of dredged material disposal.

Mitigation

Defined in the Council on Environmental Quality's regulation 40 CFR 1508.20 (a-e).

Open-water disposal

Placement of dredged material in rivers, lakes, estuaries, or oceans via pipeline or surface release from hopper dredges or barges.

Record of decision

A comprehensive summary required by National Environmental Policy Act that discusses the factors leading to U.S. Army Corps of Engineers (USACE) decisions on regulatory and Civil Works matters and is signed by the USACE District Engineer after completion of appropriate environmental analysis and public involvement.

Regulations

In the context of the Marine Protection, Research, and Sanctuaries Act, means those regulations published in the Code of Federal Regulations, Title 40, Parts 220-227, and Title 33, Parts 209, 320-330, and 335-338 for evaluating proposals for dumping dredged material in the ocean. In the context of the Clean Water Act, refers to regulations published in the Code of Federal Regulations, Title 40, Parts 230, 231, and 233, and Title 33, Parts 209, 320-330, and 335-338 for evaluating proposals for the discharge of dredged material into waters falling under the jurisdiction of the Clean Water Act.

Runoff

The liquid fraction of dredged material or the surface flow caused by precipitation on upland or nearshore dredged material disposal sites.

Sediment

Material, such as sand, silt, or clay, suspended in or settled on the bottom of a water body. Sediment input to a body of water comes from natural sources, such as erosion of soils and weathering of rock, or as the result of anthropogenic activities, such as forest or agricultural practices, or construction activities. The term dredged material refers to material which has been dredged from a water body, while the term sediment refers to material in a water body prior to the dredging process.

Suspended solids

Organic or inorganic particles that are suspended in water. The term includes sand, silt, and clay particles as well as other solids, such as biological material, suspended in the

water column.

Territorial sea

The strip of water immediately adjacent to the coast of a nation measured from the baseline as determined in accordance with the Convention on the territorial sea and the contiguous zone (15 UST 1606; TIAS 5639), and extending a distance of 3 nmi from the baseline.

Toxicity

Level of mortality or other end point demonstrated by a group of organisms that have been affected by the properties of a substance, such as contaminated water, sediment, or dredged material.

Toxic pollutant

Pollutants, or combinations of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator of the U.S. Environmental Protection Agency, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, or physical deformations in such organisms or their offspring.

Turbidity

An optical measure of the amount of material suspended in the water. Increasing the turbidity of the water decreases the amount of light that penetrates the water column. Very high levels of turbidity can be harmful to aquatic life (USACE 1986).

Upland environment

The geochemical environment in which dredged material may become unsaturated, dried out, and oxidized.

Wetlands

Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated-soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (40 CFR Part 230).

Wetlands restoration

Involves either improving the condition of existing degraded wetlands so that the functions that they provide are of a higher quality or reestablishing wetlands where they formerly existed before they were drained or otherwise converted.

Zoning

To designate, by ordinances, areas of land reserved and regulated for specific land uses.